ChatGPT and the rise of large language models: the new AI-driven infodemic threat in public health

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Abstract

Large Language Models (LLMs) have recently gathered attention with the release of ChatGPT, a user-centered chatbot released by OpenAI. In this perspective article, we retrace the evolution of LLMs to understand the revolution brought by ChatGPT in the artificial intelligence (AI) field. The opportunities offered by LLMs in supporting scientific research are multiple and various models have already been tested in Natural Language Processing (NLP) tasks in this domain. The impact of ChatGPT has been huge for the general public and the research community, with many authors using the chatbot to write part of their articles and some papers even listing ChatGPT as an author. Alarming ethical and practical challenges emerge from the use of LLMs, particularly in the medical field for the potential impact on public health. Infodemic is a trending topic in public health and the ability of LLMs to rapidly produce vast amounts of text could leverage misinformation spread at an unprecedented scale, this could create an “AI-driven infodemic,” a novel public health threat. Policies to contrast this phenomenon need to be rapidly elaborated, the inability to accurately detect artificial-intelligence-produced text is an unresolved issue.